

In The Claims:

Please cancel claims 1 through 67.

New claims 68-96, introduced by way of the present Amendment, are provided below.

1-67. Cancelled

68. (New) A method for preparing a purified polymer, said method comprising the steps of:
providing a water-soluble polymer comprising a site suitable for interacting with ion
exchange chromatography media, and
purifying said polymer by ion exchange chromatography to obtain a purified polymer
substantially absent polymeric impurities.

69. (New) The method of claim 68, wherein said polymer is branched.

70. (New) The method of claim 68, wherein said polymer is selected from the group
consisting of poly(vinyl alcohols), poly(alkylene oxides), and poly(oxyethylated polyols),
polyoxazoline, polyacrylmorpholine, polyvinylpyrrolidone, and random or block copolymers and
terpolymers thereof.

71. (New) The method of claim 70, wherein said polymer is a poly(alkylene oxide).

72. (New) The method of claim 71, wherein said polymer is a polyethylene glycol.

73. (New) The method of claim 68 wherein said site suitable for interacting with ion
exchange chromatography media is selected from the group consisting of carboxyl, hydroxyl, and
amino.

74. (New) The method of claim 72, wherein said polymer has a molecular weight ranging

from about 100 to about 100,000 daltons.

75. (New) The method of claim 74, wherein said polymer has a molecular weight ranging from about 100 to about 50,000 daltons.

76 (New) The method of claim 72, wherein said polymer comprises at least one end-capping group.

77. (New) The method of claim 76, wherein said end-capping group is alkyl.

78. (New) A method for preparing a purified polymer, said method comprising the steps of:
providing an impure polymer composition comprising (i) a polyethylene glycol (PEG) polymer, wherein said PEG polymer comprises an end capping group and a site suitable for interacting with ion exchange chromatography media, and (ii) one or more polymeric impurities selected from the group consisting of PEG diol, end capped PEG-OH, and activated end-capped PEG, and

purifying said impure polymer composition by ion exchange chromatography under conditions effective to provide said PEG polymer in substantially pure form.

79. (New) The method of claim 78, wherein said end-capping group is methyl and said polymeric impurities are selected from the group consisting of PEG diol, methoxy-PEG-OH, and activated methoxy-PEG.

80. (New) The method of claim 78, wherein said PEG polymer is branched.

81. (New) The method of claim 78, wherein said site suitable for interacting with ion exchange chromatography is selected from the group consisting of carboxyl, hydroxyl, and amino.

82. (New) The method of claim 81, wherein said site suitable for interacting with ion exchange chromatography is carboxyl.

83. (New) The method of claim 78, wherein said purifying further comprises:

loading the impure polymer composition onto an ion exchange chromatography medium to provide a loaded medium,

washing the polymeric impurities from said loaded medium using an aqueous eluent under conditions effective to elute said impurities from said medium,

adjusting the conditions of the aqueous eluent to effect elution of said PEG polymer from the medium, and

eluting said PEG polymer from said medium to provide an aqueous solution comprising said PEG polymer in substantially pure form.

84. (New) The method of claim 83, further comprising recovering said purified PEG polymer from said aqueous solution.

85. (New) The method of claim 83, wherein said PEG polymer is absent a hydrolytically unstable ester linkage.

86. (New) The method of claim 83, wherein said end-capping group is methyl and said polymeric impurities are selected from the group consisting of PEG diol, methoxy-PEG-OH, and activated methoxy-PEG.

87. (New) The method of claim 86, wherein said polymer has a molecular weight ranging from about 100 to about 100,000 daltons.

88. (New) The method of claim 86, wherein said PEG polymer further comprises a linker fragment connecting said PEG backbone to said site suitable for interacting with ion exchange chromatography media.

89. (New) The method of claim 86, wherein said PEG polymer is absent an aromatic moiety.
90. (New) The method of claim 86, wherein said adjusting step comprises adjusting the pH of the aqueous eluent.
91. (New) The method of claim 86, wherein said adjusting step comprises adjusting the salt concentration of the eluent.
92. (New) The method of claim 86, wherein said polymer is branched.
93. (New) The method of claim 92, wherein said polymeric impurities further comprise a mono-substituted PEG intermediate.
94. (New) The method of claim 78, effective to essentially remove said polymeric impurities.
95. (New) A polymer purified by the method of claim 68.
96. (New) A PEG polymer purified by the method of claim 78.